

# GHANA

**Total Country Population (2000)** 18.8 million

**Catchment Population** 3 million  
22 districts in 3 regions in the north  
(Upper East, Upper West, and Northern)

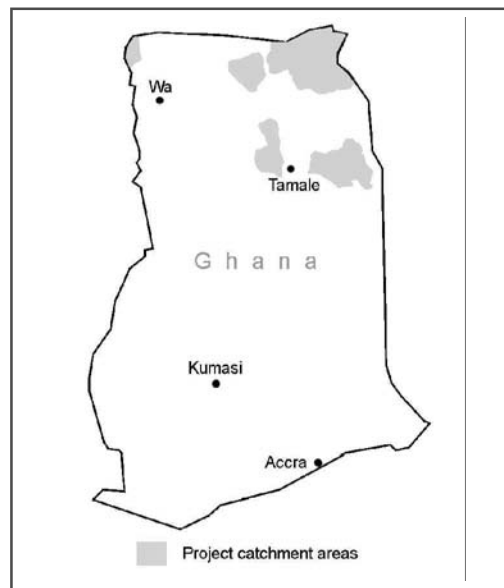
## Country Profile

Nearly all mothers initiate breastfeeding in Ghana. However, sub-optimal breastfeeding practices begin on the first day. Only 25 percent of women initiate breastfeeding within the first hour after birth; half wait until the second day or later, with the Upper East Region having the lowest rates of early initiation (seven percent within one hour of birth and 70 percent on the second day or later). Approximately 20 percent of mothers nationwide practice exclusive breastfeeding for the recommended period of the first six months. The low rate of exclusive breastfeeding is largely due to the introduction of water and other liquids at an early age. The Ghana Health Services estimates that sub-optimal breastfeeding practices contribute to about eight percent of infant deaths or about 3,300 infant deaths each year.<sup>1</sup>

While early introduction of liquids and complementary foods is a common problem, late introduction of appropriate complementary foods is also a problem. One-fourth of Ghanaian children between the ages of 10–11 months do not receive any type of solid or mushy food. By 24 months of age, over one-fourth of Ghanaian children are stunted (low height for age), with the highest rates of stunting (35–40 percent) found in children living in the northern regions of the country where LINKAGES is working.<sup>2</sup>

## Program Design

**Assessing the situation.** Events leading up to design and implementation of the GHS/LINKAGES Nutrition Behavior Change Communication (BCC) Program included a 1997 national nutrition workshop and a 1998 GHS assessment of nutrition and community programs. These events helped to shape the GHS policy guidelines and strategies, with breastfeeding promotion and protection one of its top five child survival strategies. The overall strategy of the GHS/LINKAGES program is to work with and build the capacity of



the Ghana Health Services and partners to improve infant and young child feeding through effective planning and delivery of targeted interventions at national, regional, and community levels.

**Building partnerships.** The GHS and LINKAGES designed a program that builds on established governmental and nongovernmental networks (see Box) and community-based approaches in the three regions of northern Ghana. One of the goals of each partner is to address malnutrition and/or improve household nutrition and food security. The approaches used by the partners include literacy activities, mothers clubs, small income generation and credit, water and sanitation initiatives, community development, growth promotion/monitoring, food distribution, and mobile clinic work.

The BCC/community strategy was developed with the active participation of the partners—from the sub-district to the national level—through stakeholders workshops, action-oriented research, skills building workshops, and pretesting of messages and materials. The result is a collage of locally tailored approaches based on common messages that are reinforced through print materials, mass media, organized support networks, and community events. These approaches reach beyond traditional target groups—pregnant women and mothers of children less than two years—to include grandmothers, fathers, mother support groups, and the media. The partners began integrating BCC activities into their ongoing work not long after the initial trainings in early 2000.

<sup>1</sup> PROFILES, 1999.

<sup>2</sup> Ghana Statistical Service (GSS) and Macro International Inc. (MI). Ghana Demographic and Health Survey 1998. Calverton, Maryland: GSS and MI



## Partnerships

The community component of the program works with a broad network of government, international, and local partners operating in northern Ghana.

- ♦ **Ghana Health Services.** At the national level, the Nutrition Unit, Reproductive and Child Health Unit, and Human Resources Division are involved in the GHS/LINKAGES program. The program also engages the GHS network of nutritionists based in regional capitals and districts throughout the country. At the community level, the GHS promotes improved breastfeeding and child feeding practices through nurses and other health professionals during antenatal, postnatal, and child welfare clinic services. GHS public and community health nurses communicate infant nutrition messages during home visits and growth promotion sessions. GHS public health nurses and community health nurses at the health facility level are often the main service providers for many of the NGO community-based health programs in northern Ghana.
- ♦ **Government agencies and UNICEF.** The Ministry of Local Government, with other government agencies and UNICEF, implements a range of interrelated development activities at the community level in northern Ghana. These programs enable community health nurses and multisectoral teams—comprised of disease surveillance agents, non-formal education literacy teachers, civic educators, agricultural extension agents, the District Assembly member for the area, and community representatives—to identify opportunities for local development and implement programs that respond to community needs. Nutrition BCC is an integral part of UNICEF's strategy in northern Ghana.
- ♦ **NGO partners.** Nutrition behavior change communication activities are being implemented through diverse programmatic strategies employed by ActionAid, the Association for Church Development Projects (ACDEP), Catholic Relief Services (CRS), Freedom from Hunger, Ghana Red Cross, Ghana United Nations Students Association (GUNSA), New Energy, the University for Development Studies, the World Food Program, and World Vision International.
- ♦ **Media.** Journalists and station managers of three national radio stations based in the north participate in GHS/LINKAGES training activities and incorporate key messages on a regular basis in their writings and broadcasts.

**Going to scale.** Initially the program involved three partners with activities in nine districts in the Upper East, Upper West, and Northern regions. By 2002 the program had expanded its reach to 22 of the 24 districts in the north and involved 13 partners, including four radio stations. The current estimated catchment population of the program in northern Ghana is approximately 3 million. Elements of the program are rapidly expanding to other regions of the country as GHS staff in those areas participate in workshops and trainings and current partners include breastfeeding activities as part of their child survival activities in other regions.

**Fostering sustainability and program ownership.** In 2001 the GHS and LINKAGES added pre-service curricula development and training to the program to ensure that future health providers are equipped with current technical information and counseling skills to promote and support breastfeeding and other nutrition behaviors. The goal of this initiative is to create a cadre of lecturers and tutors from health training institutions nationwide with the knowledge and skills required to provide up-to-date instruction in BCC, breastfeeding, complementary feeding, and essential actions for improving nutritional status.

## Program Focus and Activities

Focal areas for the GHS/LINKAGES program include advocacy and information dissemination, community mobilization/behavior change communication, capacity building, and monitoring and evaluation

### Advocacy and information dissemination

One of the objectives of the GHS/LINKAGES' strategy for improving infant nutrition is to increase awareness of nutrition issues and then translate this awareness into action. PROFILES, a process for engaging nutrition and health professionals in nutrition data analysis and advocacy, is part of this strategy. The national PROFILES workshop in 1997 brought together a group of prominent Ghanaian nutritionists and other technical experts to define the country's nutrition problems and priorities. Additional advocacy presentations were developed for targeted audiences at three regional workshops.

***Advocacy work and information dissemination take nutrition out of the kitchen and put it on the policy table.***

Highlights of other advocacy and information dissemination activities since 1999 include:

- ♦ a roundtable discussion on HIV and infant feeding, which set the stage for the development of health worker guidelines for counseling mothers on HIV and breastfeeding;
- ♦ support to the Food and Nutrition Security Unit at the University for Development Studies (UDS) for the dissemination of nutrition information to key contacts and members of the Food and Nutrition Security Network; and
- ♦ establishment of an Information Hub at the UDS campus in Tamale. The purpose of the Hub is to facilitate access to topical issues on food and nutrition and to advocate for improved policies and action.

### **Community mobilization and behavior change communication**

The GHS/LINKAGES community-based strategy uses participatory approaches to promote program ownership, develop new skills, and build confidence. One of the program's objectives is to contribute to the ability of all partners to plan, deliver, and evaluate effective BCC programs to promote timely initiation of breastfeeding, exclusive breastfeeding, and timely and appropriate complementary feeding practices.

Multiple channels of communication build on existing community-level interventions, including health fairs, mother support groups, contacts at health facilities, home visits by community workers, and meetings with opinion leaders in the community.

Messages and materials were created with active participation by the GHS and partners during the following process:

- ♦ a two-week message and materials production workshop in early 2000;
- ♦ formative research that included 36 focus groups with men, mothers, older women, and traditional and formal health care providers, and the pretesting of messages, sample radio spots, and visual images; and
- ♦ a six-day follow-up workshop to refine the creative briefs and messages, consolidate findings from the pretests, and establish the strategic direction for the program.

Mass media, particularly local radio, carry the program's key messages beyond the catchment area. Since 2000 local radio stations in Ta-



*Counseling Card developed by LINKAGES Ghana*

male, Bolgatanga, and Wa have been airing programs on breastfeeding and improved child feeding in English and eight local languages. The programs use a wide variety of formats such as radio call-in shows, quiz programs, dramatic comedies, panel discussions with local nutrition experts, and advice from community leaders. Radio campaigns are a regular feature of the annual World Breastfeeding Week. Reports on community fairs and other community activities promoting exclusive breastfeeding appear in the local press and are broadcast on the radio and on regional and national television. A November 2001 follow-up survey found that over 90 percent of the target audience recalled hearing at least one of the program's key messages on the radio.

### **Capacity building**

Training offered by the project develops transferable skills for communicating key messages on breastfeeding and complementary feeding and encouraging women and families to try, adopt, and maintain new behaviors. Trainings explore participatory approaches for involving men and grandmothers to support improved infant feeding practices in the home. Participants practice using visuals and other communication techniques to enliven the messages and create an environment where individuals and communities feel comfortable trying and adopting new behaviors. Ghanaian experts in breastfeeding and young child nutrition serve as resource persons and facilitators in all of the trainings.

***In-service Training.*** In addition to messages and materials workshops and a training of trainers on the Baby-Friendly Hospital Initiative, the Ghana Health Services and LINKAGES have trained trainers from the GHS and partner organizations on behavior change communication (11 days) and mother-to-mother breastfeeding support group methodology (10 days). Those trained have replicated or "rolled out" similar trainings in their own program areas using LINKAGES' training materials, adapted for the local context. To date the

GHS and LINKAGES have sponsored three mother support group workshops and seven BCC trainings. Due to popular demand, many of the NGOs have started father support groups or “mixed” support groups to promote better child feeding and other health messages in their target areas. Since the original BCC trainings, thousands of field agents and staff from partner organizations have been trained and equipped with the skills and tools needed to work with mothers, fathers, older women, and communities to negotiate better infant feeding practices in the home.

As the project expands and adds new partners, LINKAGES will provide ongoing technical and supervisory assistance, as needed, and offer additional training opportunities in the north and other areas of the country. In addition, the GHS and LINKAGES will continue to host refresher meetings for partners to build solidarity, offer technical updates, and provide a forum for information exchange.

**Pre-service Training.** In 2001 the GHS Human Resources Division took the lead with LINKAGES in establishing a Pre-service Task Force with representation from training institutions throughout the country. The Task Force reviewed the duties of graduates of medical and paramedical schools and the adequacy of existing nutrition curricula to prepare them for their professional posts. The Task Force identified curricula gaps and opportunities and revised the curricula of all medical and paramedical programs to ensure that they adequately addressed breastfeeding and other nutrition issues.

Currently 43 out of 45 medical and paramedical institutions, representing 15 degree and certificate programs, have participated in one or more one-week training courses that provide up-to-date information on BCC, the essential nutrition actions, and infant and young child feeding. Another outcome of the project is the incorporation of nutrition BCC into the community nutrition curriculum of the University for Development Studies in the Northern Region.

## Monitoring and evaluation

An integral component of the GHS/LINKAGES behavior change strategy in Ghana is monitoring and evaluation. Using a rapid assessment procedure, LINKAGES collected quantitative and qualitative data in October 2000 and October 2001 to measure the major indicators of the GHS/LINKAGES program and to assess the effectiveness of its district-level strategy. Control communities were surveyed in 2000 but not in 2001.

The studies were conducted using a cluster sampling methodology in program coverage areas in nine districts in northern Ghana. The three partners participating in the survey were UNICEF, Catholic Relief Services, and the Ghana Red Cross Society. The surveys represented a cross-sectional sample of mothers with children less than 12 months of age.

The results after 18 months of program implementation demonstrate that breastfeeding practices can be changed quickly. Breastfeeding practices continued to improve between the two surveys. The rate of timely complementary feeding declined although consumption of enriched foods increased. LINKAGES responded to the 2001 survey findings by placing greater emphasis in the program on timely complementary feeding.

**Program Results**

Indicator	Control 2000	Program	
		2000	2001
Initiation of breastfeeding within first hour	14%	32%	62%
Exclusive breastfeeding (infants 0–5 months)	44%	68%	78%
Timely complementary feeding (infants 6–9 months)	74%	74%	60%

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# Ghana Results

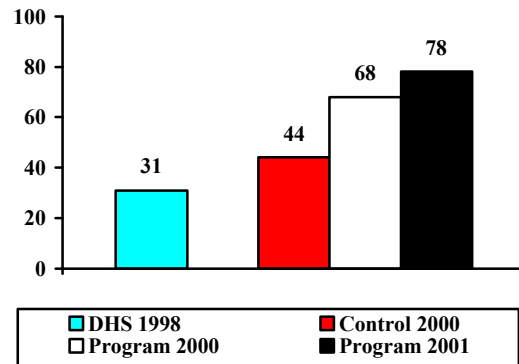
LINKAGES' behavior change strategy in Ghana demonstrates that breastfeeding practices can be changed quickly. Using a rapid assessment procedure (RAP), LINKAGES collected quantitative and qualitative data in October 2000 and October 2001 to evaluate the effectiveness of its district-level behavior change strategy to improve breastfeeding and complementary feeding practices. Most of the key indicators show that practices continued to improve between the two surveys.

The studies were conducted using a cluster sampling methodology in program coverage areas in nine districts in northern Ghana. The three partners participating in the survey were UNICEF, Catholic Relief Services, and the Ghana Red Cross Society. The studies were cross-sectional surveys of mothers with children less than 12 months of age. They measured the major indicators of the MOH/LINKAGES program and gathered information that would enable the MOH, LINKAGES, and its partners to assess trends in the knowledge and attitudes of secondary target audiences—grandmothers and fathers of eligible children—about child feeding practices.

The findings are based on interviews in 2000 with 454 mothers of children less than 12 months and in 2001 with 377 mothers of children less than 12 months. The 1998 Demographic and Health Survey (DHS) and data from the project's control sites in 2000 serve as points of comparison. The main findings of the survey are reported below. Full reports on the results of the 2000 and 2001 RAP surveys are available upon request from LINKAGES.

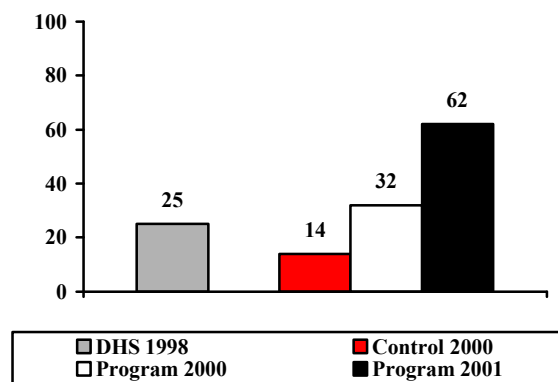
**Exclusive breastfeeding increased dramatically.** In the 2000 RAP, the rate of exclusive breastfeeding of infants less than six months was 68% in the program area compared with 44% from control communities located near the program area and 31% from the 1998 DHS. In the 2001 RAP, the exclusive breastfeeding rate in the program area rose to 78%. Control communities were not surveyed in 2001.

**Exclusive breastfeeding in the first 6 months of life**  
(women with infants from 0-5 months)



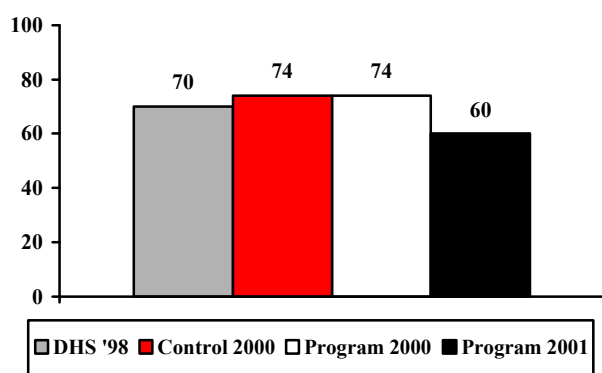
**Early initiation of breastfeeding (within one hour of birth) was about four times more common in program communities than in control communities.** Data collected in the 2000 RAP indicate that early initiation was more than double in the program area (32% compared with 14% from control communities). In the 2001 RAP, data continued to show an impressive improvement by mothers in practicing early initiation of breastfeeding, with an increase to 62%.

**Initiation of breastfeeding within first hour**  
(women with infants from 0-11 months)



**Timely complementary feeding of infants 6–9 months decreased.** Rapid appraisal data show a drop between the two appraisals in the percentage of infants 6–9 months that received complementary foods (74% to 60%). Although this is disappointing, it is not entirely surprising. Various cultural beliefs and practices are constraints to adoption of this practice. Program efforts by LINKAGES during the first two years included messages on timely complementary feeding along with messages on exclusive and timely initiation of breastfeeding and enrichment of complementary foods. As a result of the RAP 2001 findings, LINKAGES has increased its promotion of timely complementary feeding.

**Timely complementary feeding**  
(infants 6–9 months given breastmilk and solid foods in previous 24 hours)



## Other Key Findings

- **Consumption of enriched complementary foods increased in the second year of the program.** In the 2000 RAP, it was reported that only 29% of infants 6–11 months old who received porridge ate porridge that had been enriched, usually by adding sugar. In 2001 those receiving some form of enriched porridge increased to 77%. For 12% of these infants, sugar was the only addition to the porridge. Others received porridge enriched with nutrient-rich foods such as fish, fish powder, beans, bean flour, groundnut paste (peanut butter), milk, egg or yolk, oil, and/or shea butter.
- **Over 90% of radio listeners surveyed recalled at least one of the infant feeding messages.** Radio listening is very high in the partner coverage districts with 75% of mothers, 72% of grandmothers, and 88% of fathers stating that they listen to the radio. Of radio listeners, 96% of mothers, 97% of grandmothers, and 99% of fathers reported that they had heard messages on breastfeeding or child feeding.